

# FSA Modernization Partner ITA Evergreening Strategy FY2003

July 31, 2003



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## Introduction

#### 1.1 Purpose

This document, the ITA Evergreening Strategy, explains the planned upgrades by the ITA team for FY2003.

#### Key Drivers:

- Allow Department of Education FSA to leverage current software for business needs.
- Enhance software performance and apply consolidated patches with new version release.
- Guarantee continued maintenance support from vendors
- Eliminate potential future limitations.

## 1.2 Scope

This document describes the Evergreening strategy:

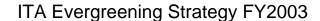
- Software Upgrades
  - Summary
    - Current/Target Version Information
    - Product Version Details, Product Support Details and License Information
    - Benefits & New Features
  - Implementation Plan
  - Systems Affected



# 2 Sun Solaris OS Upgrade

Solaris is the operating system running on the Sun & HP systems. Upgrading to the Solaris 2.8 will ensure the Operating System will provide greater stability in continuing to operate the applications that Department of Education has currently implemented. Furthermore the upgrade is essential to maintain vendor product support which is a crucial element in ensuring timely response and support if and when production support is required. Additionally the OS upgrade will allow the business application owners to continue to develop and plan for enhanced feature rich new applications eliminating any potential limitations that the OS may present as a consequence of a lower product version.

Current Version	2.6	
Support Termination Date		
Target Version	2.8	
Support Termination Date	2005	
Release Date	June 2000	
	Production: FSA	
Software License Owner	Development / Performance Test: FSA	
Key Highlights	<ul> <li>UNIX operating environment, combining power, stability, and predictability with complete backwards compatibility</li> <li>Offers data center-class reliability, availability, and serviceability at a fraction of the cost of a mainframe</li> <li>Assures superior availability through a smaller, more stable kernel design and increased load balancing across multiple processors.</li> <li>Scales to handle heavy traffic, huge data sets, and compute-intensive problems.</li> <li>Tightens an already secure environment with increased support for major security protocols as well as new technologies.</li> <li>Offers a complete global solution with extensive support for 37 languages and 123 locales.</li> <li>Provides the premier deployment platform for Java[tm] technology.</li> <li>Enhances ease of use through simplified software installation and setup plus comprehensive integration capabilities.</li> <li>Supports the latest networking protocols and adheres to all major industry standards.</li> </ul>	
Benefits / New Functionality	<ul> <li>Security</li> <li>Smart Card Support</li> <li>GSS-API</li> <li>Role Based Access Control (RBAC)</li> <li>IPSec</li> <li>Mitigation of Buffer Overflow Areas</li> <li>Kerberos</li> <li>RPCSEC-GSS</li> <li>Pluggable Authentication Modules</li> <li>Manageability</li> <li>Solaris Volume Manager Soft Disk Partitions</li> <li>Live Upgrade 2.0</li> <li>Solaris Flash Software</li> <li>Mobile IP</li> </ul>	





- Tasks, Projects, and Accounting
- Solaris WBEM Services
- Sun Management Center Software
- Availability
  - Live Upgrade 2.0
  - Reconfiguration Coordination Manager (RCM)
  - UFS Snapshots
  - Network Multipathing (IPMP)
  - Modular Debugger
  - Sun StorEdge Traffic Manager
  - Driver Fault Injection
  - Hot Patching
  - SunPlex Cluster Framework
  - System Crash Dump Utility
  - UFS Logging
  - Faster Reboot
- Scalability
  - Remote Shared Memory API (RSMAPI)
  - Network Cache & Accelerator (NCA)
  - Mkfs Performance
  - Page Coloring
  - Enhanced DNLC
  - Ipv6
  - One Million Active Processes
  - 64-bit Computing Environment
  - NFS

#### 2.2 Implementation Plan

Task	Owner
Obtain and Install Sun Solaris 2.8 on the ITA Development & Performance Test Systems	CSC
Perform Sun Solaris 2.8 regression testing to ensure all applications are functioning properly	ITA/Business Owners
Create Sun Solaris 2.8 upgrade plan and schedule Production upgrade	ITA / CSC
Execute Production Upgrade	ITA / CSC
Perform Infrastructure Architecture Testing	ITA
Perform Application Testing	Business Owners



Environment	Server	Provides	IP Address
Development SU35E2		Web & Search Engine Server IFAP, FSANet, CBS, EAI, ITA, EIP, FSACoach, FP & Students Portal, Program Guidance, ezAudit, NSLDS II, Ombudsman, Exit Counseling, students.gov	4.20.14.132
Development SU35E5		Application & ETL Server FP & CM, Data Marts, IFAP, FSANet, CBS, EAI, ITA, EIP, FP & Students Portal, Program Guidance, Ombudsman, Exit Counseling, ezAudit, NSLDS II, students.gov	4.20.14.135
Performance Test	SU1E20	No longer in use.	N/A
Performance Test	SU1E24	IBM eND Primary	4.20.18.95
Performance Test	SU35E4	IBM HTTP Server 1.3.12 & WAS v3.5	4.20.14.134
Performance Test	SU35E6	IBM HTTP Server 1.3.12	198.77.203.73
Performance Test	SU35E11	IBM WAS v3.5	4.20.18.74
Production	SU22E3	IBM eND Primary	198.77.163.145
Production	SU22E4	IBM eND Secondary	198.77.163.140
Production	SU35E10, SU35E12	IBM HTTP Server	198.77.163.144 198.77.163.146
Production	SU35E9, SU35E13	IBM WAS Server v3.5	198.77.163.143 198.77.163.147
Development	SU35E16	EAI Development	4.20.14.136
Performance Test	SU35E17	EAI Development	4.20.14.137
Production	SU35E3	EAI Production	4.20.17.137
Production	SU35E14	EAI Production	198.77.163.176
Production	SU35E1	Interwoven Team Site	4.20.14.131
Production	SU35E8	Viador and HIS	4.20.17.142
Production	SU35E7	Autonomy Primary	4.10.17.141
Production	SU35E15	Autonomy Failover	4.20.17.149



# 3 IBM Websphere Edge Server (formerly eNetwork Dispatcher) Upgrade

IBM WebSphere Edge Server 2.0 is a complete solution for enabling application aware networks. Edge Server provides an integrated solution for load balancing, static and dynamic caching, application offload, content distribution, enhanced security, and transactional quality of service all under centralized administrative and application control.

Upgrading to the Edge Server 2.0 will allow the architecture team to leverage the new features of Edge Server such that better performance for the business owner applications can be achieved. Furthermore the upgrade is essential to maintain vendor product support which is a crucial element in ensuring timely response and support if and when production support is required. Additionally the Edge Server upgrade will allow the business application owners to continue to develop and plan for enhanced feature rich new applications eliminating any potential limitations that Edge Server may present as a consequence of a lower product version.

· · · · · · · · · · · · · · · · · · ·		
Current Version	3.6.1.11	
<b>Support Termination Date</b>		
Target Version	2.0 (4.0 version of formerly eNetwork Dispatcher)	
<b>Support Termination Date</b>		
Release Date	September 28, 2001	
Software License Owner	Production: FSA Development / Performance Test: FSA	
<ul> <li>Key Highlights</li> <li>Helps enhance performance by offloading the application and enabling application de-layering.</li> <li>Provides a more complete, scalable content distribution.</li> <li>Provides priority services to preferred customers with differentiation.</li> <li>Helps reduce infrastructure and management costs.</li> <li>Evaluates and manages Web performance and custom levels.</li> <li>Improves scalability and availability through server classilover.</li> </ul>		
Benefits / New Functionality	<ul> <li>Application Offload shifts the burden of serving composed, personalized, dynamic content from the application server to Edge Servers placed at network edges by offloading back-end servers and peering links.</li> <li>Content Distribution deploys published Web content to caches and "rehosting servers" throughout the network.</li> <li>Enhanced Caching improves response time by offloading back-end servers and peering links as a forward, reverse, or transparent proxy. Cache and invalidate dynamic content generated by WebSphere Application Server including Java Server Pages (JSPs) components and servlets.</li> <li>Enhanced Load Balancing via new features such as Network Address Translation (NAT), Kernel-level Content Based Routing (CBR) support and the WebSphere Edge Server Consultant for Cisco CSS switches. This can improve server selection, load optimization,</li> </ul>	



# ITA Evergreening Strategy FY2003

and fault tolerance.

**Transactional Quality of Service** allocates computing and network resources according to a transaction's business value and interoperates with networking hardware.

# 3.2 Implementation Plan

Task	Owner
Obtain and Install IBM Websphere Edge Server 2.0 on the ITA Performance Test Systems	ITA
Perform IBM Websphere Edge Server 2.0 regression testing to ensure all applications are functioning properly	ITA
Create IBM Websphere Edge Server 2.0 upgrade plan and schedule Production upgrade	ITA / CSC
Execute Production Upgrade	ITA / CSC
Perform Infrastructure Architecture Testing	ITA
Perform Application Testing	ITA

Environment	Server	Provides	IP Address
Production	SU22E1	FAFSA IBM eND Primary	4.20.18.211
Production	SU22E2	FAFSA IBM eND Secondary	4.20.18.212
Performance Test	SU22E20	No longer in use.	N/A
Performance Test	SU22E24	IBM eND Primary	4.20.18.95
Production	SU22E3	IBM eND Secondary	198.77.163.145
Production	SU22E4	IBM eND Primary	198.77.163.140



# 4 IBM Websphere Application Server

IBM WebSphere Application Server (WAS) maintains the FSA applications. WAS communicates and delivers content to the IBM Internet HTTP Server (IHS) in response to the user's requests.

Upgrading to the WAS will allow the architecture team to leverage the new features of WAS such that better performance for the business owner applications can be achieved. As well as increase the ease in maintaining the business applications and the application server. Furthermore the upgrade is essential to maintain vendor product support which is a crucial element in ensuring timely response and support if and when production support is required for troubleshooting production issues that at times do arise. Additionally the WAS upgrade will allow the business application owners to continue to develop and plan for enhanced feature rich new applications eliminating any potential limitations that WAS may present as a consequence of a lower product version.

Current Version	3.5.6
Support Termination Date	December 1, 2003
Target Version	5.0.1
<b>Support Termination Date</b>	No Date announced
Release Date	May 2001
Software License Owner	FSA
Key Highlights	Provides Support and Integration with:
	Full Web Services Integration
	J2EE Certification
	Expandable EJB & Database Support
	JMS/XA (MQ) Integration
	Unparalleled Connectivity
	Performance, Scalability, Security
	<ul> <li>Streamlines integration tasks by leveraging the power of Web services for building on demand, network-based applications</li> <li>Employs a service orientation to dynamically integrate IT assets within and across enterprises.</li> <li>Choreographs interactions between reusable services with a fully integrated Web services workflow engine.</li> <li>Enables advanced transactional connectivity to coordinate interactions with multiple back-end systems across the network.</li> <li>Provides intelligent, out-of-the-box compensation capabilities to rollback multiple transactions in reverse order if a failure should occur later in a business process.</li> </ul>
	Enables the real-time application flexibility required for on demand applications
	<ul> <li>Leverages business rules to create adaptive applications that can quickly respond to changing business conditions.</li> </ul>





	<ul> <li>Allows the development of flexible applications with which users can dynamically interact by building and submitting queries at runtime.</li> </ul>	
	<ul> <li>Accelerates on demand application development tasks</li> <li>Works with a highly integrated, Eclipse-based application development environment for building workflows, J2EE artifacts, Web services and sophisticated application adapters.</li> <li>Delivers J2EE and Web services innovations to tackle some of toda toughest coding challenges.</li> <li>Reduces time to market by promoting the reuse of services in new applications and by minimizing the disruption in existing application when changes to individual services are required.</li> <li>Includes deployment capabilities offering developers the tools to</li> </ul>	
	optimize performance without impacting source code.	
Benefits/New Functionality	<ul> <li>Improved, embedded Web Services support</li> <li>This new functionality, which previously had to be added manually, improves on the proven Web Services engine.</li> <li>The implementation of Web Services embedded within WAS 5.0 provides greater scalability and support for applications.</li> <li>Improved Reliability and Scalability</li> <li>Administration configuration is stored within XML, streamlining and improving the administrative performance and scalability</li> <li>No Admin database is used for the configuration</li> <li>Improves the use and integration of reusable components and technologies</li> </ul>	
	<ul> <li>Improved Security</li> <li>Utilizes either built-in security or the optional WebSphere Directory Server (LDAP)</li> <li>Gives administrators the ability to assign tasks based upon roles and responsibilities to track configuration changes</li> </ul>	
	and responsibilities to track configuration changes	

# 4.2 Implementation Plan

Task	Owner
Obtain and Install IBM WebSphere Application Server 5.0 on the ITA Development & Performance Test Systems	ITA
Perform IBM WAS 5.0 regression testing to ensure all applications are functioning properly	ITA
Create IBM WAS 5.0 upgrade plan and schedule Production upgrade	ITA / CSC
Execute Production Upgrade	ITA / CSC
Perform Infrastructure Architecture Testing	ITA
Perform Application Testing	ITA



Environment	Server	Provides	IP Address
Development	HPA2	FAFSA	4.20.14.34
Development	SU35E5	Informatica Application & ETL Server FP & CM Data Marts IFAP, FSANet, eCBS, EAI, ITA, EIP, FP & Students Portal, Program Guidance, Ombudsman, Exit Counseling, ezAudit, NSLDS II, students.gov	4.20.14.135
Performance Test	HPN3	Exit Counseling, IFAP, eCBS, Students.gov, FSANet, FSACoach, Program Guidance, FP & Students Portals	4.20.14.56
Performance Test	HPN8	Exit Counseling, IFAP, eCBS, Students.gov, FSANet, FSACoach, Program Guidance, FP & Students Portals	4.20.18.77
Performance Test	SU35E11	Portals, eCBS	4.20.18.74
Performance Test	SU35E4	Portals, eCBS	4.20.14.134
Production	SU35E9	FSA Coach, Program Guidance, FP & Students Portal, IFAP, eCBS, students.gov, FSANet, Ombudsman, Exit Counseling	198.77.163.143
Production	SU35E13	FSA Coach, Program Guidance, FP & Students Portal, IFAP, eCBS, students.gov, FSANet, Ombudsman, Exit Counseling	198.77.163.147
Production	HPN5	FAFSA	4.20.18.232
Production	HPN7	FAFSA	4.20.18.213
Production	HPN16	FAFSA	4.20.18.226
Production	HPN15	FAFSA	4.20.18.225
Production	HPN2	FAFSA	4.20.18.220



#### 5 Interwoven Upgrade

Interwoven TeamSite (part of the Interwoven 5 platform) incorporates content contribution, collaboration, and management across the enterprise. From portals, external and internal Websites to CRM, eCommerce, and knowledge management initiatives, TeamSite provides capability and flexibility in content management.

Interwoven OpenDeploy automates the entire content distribution process, eliminating traditionally manual, customized, inefficient distribution processes. OpenDeploy provides cost-effective aggregation and distribution of any type of content (web content, code, documents, media, etc.) to any application (comprised of web servers, application servers, database servers or simple file servers) in any physical location within a network. OpenDeploy also ensures that code and content are accurate, secure and easily synchronized.

Interwoven DataDeploy enables the deployment of XML, metadata and dynamic content to relational databases used by business applications, personalization servers, enterprise portals, search engines and so on.

Upgrading to the Interwoven 5.0 will allow the architecture team to leverage the new features of Interwoven such capabilities as code deployment, static content deployment and better performance for the business owner applications can be achieved. Furthermore the upgrade is essential to maintain vendor product support which is a crucial element in ensuring timely response and support if and when production support is required. Additionally the Interwoven upgrade will allow the business application owners to continue to develop and plan for enhanced feature rich new applications eliminating any potential limitations that Interwoven may present as a consequence of a lower product version.

	TeamSite 5.0.1
Current Version	OpenDeploy 5.0.1
	DataDeploy 5.0
	TeamSite 5.0.1 – Interwoven has yet to determine
Support Termination Date	OpenDeploy 5.0.1 - Interwoven has yet to determine
	DataDeploy 5.0 - April 15, 2003
	TeamSite 5.5.2
Target Version	OpenDeploy 5.6
	DataDeploy 5.6
	TeamSite 5.5.2 - Interwoven has yet to determine
Support Termination Date	OpenDeploy 5.6 - Interwoven has yet to determine
	DataDeploy 5.6 - Interwoven has yet to determine
Release Date	June 28, 2002
Software License Owner	Production: FSA
Software License Owner	Development / Performance Test: FSA





Von Hicklighte	T
Key Highlights	<u>TeamSite</u> ■ Scalable Enterprise Content Management (ECM) software.
	<ul> <li>Staging and promotion model to facilitate collaboration amongst</li> </ul>
	multiple independent teams working in parallel on multiple
	independent projects.
	<ul> <li>User tools that provide simple ways for business users to contribute,</li> </ul>
	review, edit, markup, and approve business content such as
	documents and web content.
	<ul> <li>Versioning, site archiving and site rollback.</li> </ul>
	<ul> <li>XML platform for content publishing and multi-channel delivery.</li> </ul>
	<ul> <li>Business process automation (i.e. workflow).</li> </ul>
	<ul> <li>Hybrid architecture for managing assets in database repositories and</li> </ul>
	native file system locations.
	<ul> <li>Open standards and interfaces including XML, XSLT, DOM, COM, SAX2, DTD, VB, ODMA, Java, J2EE, and HTML.</li> </ul>
	<ul> <li>Security including user, asset, and role based permissions, as well as</li> </ul>
	support for LDAP, SSL, digital signatures and electronic signatures.
	support for 122111, 5522, digital signatures and electronic signatures.
	<b>OpenDeploy</b>
	<ul> <li>OpenDeploy ensures that code and content is accurate, secure and</li> </ul>
	easily synchronized across the enterprise.
	<ul> <li>Ensures web site and internet-based application integrity.</li> </ul>
	<ul> <li>Accelerates application rollouts.</li> </ul>
	<ul> <li>Ensures compliance of code and content in sites and applications.</li> </ul>
	DotoDonlov
	<ul><li>DataDeploy</li><li>■ Enables the deployment of XML, metadata and dynamic content to</li></ul>
	relational databases used by business applications, personalization
	servers, enterprise portals, search engines, etc.
	<ul> <li>In development environments, the DataDeploy Database Auto-</li> </ul>
	Synchronization (DAS) feature automatically updates databases
	when changes are made to content in TeamSite areas.
	<ul> <li>XML content and TeamSite metadata can be deployed to tables in</li> </ul>
	relational databases that are customized based on the content being
	deployed.
	• Synchronizes data between Teamsite editions and development
	databases across a firewall.  Manual danlarments from the DataDanlar administration year
	<ul> <li>Manual deployments from the DataDeploy administration user interface (UI) or command line, or scheduled deployments if</li> </ul>
	DataDeploy is used with OpenDeploy.
Benefits / New Functionality	TeamSite
·	<ul> <li>Improved scalability - With Version 5.5, each TeamSite server can</li> </ul>
	now support up to eight concurrent content stores. Each content
	store can have its own backup and restore schedule without
	impacting the runtime performance of applications using the rest of
	the content stores.
	<ul> <li>Increased Performance - Improved performance for branch and edition operations, concurrent workflow tasks, UI templating and</li> </ul>
	directory navigation.
	<ul> <li>TeamSite Front-Office 5.5.2 - TeamSite Front-Office redesigned to</li> </ul>
	provide a simple, easy-to-use and easy-to-administer PC desktop
	integration. TeamSite Front Office "Briefcase" users can access all



core content management functions (check-in, check-out, version history, change properties/metadata) on any file that resides on the desktop, by simply right clicking on the mouse.

 VisualTemplate Builder - Provides an efficient and productive way to visually build your templates (DCTs and Presentation Templates).

#### **OpenDeploy**

- Multi-tier Transactional Deployment Multi-tier distribution offers an efficient approach for staging content to multiple servers.
- Quorum It is now possible to specify the number of targets to which OpenDeploy must successfully deliver content before the entire deployment transaction is committed.
- Reporting New reporting facility for capturing events, database for storing event details, user interface for querying and viewing reports, and a published schema for integrating external tools.
- Delivery Adapter Framework The Delivery Adapter Framework enables the creation of application-specific adapters for extending the content delivery capabilities of OpenDeploy.
- NetCache Integration Network Appliance NetCache adapter that
  plugs into the Delivery Adapter Framework. As a result, users can
  implement a single, consistent, and global solution for distributing
  content from development to production all the way out to the very
  edge of the network.
- Enhanced Deploy and Run The OpenDeploy Deploy and Run feature has been enhanced to provide greater flexibility when integrating external applications with deployment tasks.
- New Deployment Options including data compression, path- and pattern-based inclusion filters, and base server configurations run as non-Administrator or non-root users.
- Usability Improvements to make administration easier.

#### **DataDeploy**

- **Standalone XML Deployment -** Deploy TeamSite-based XML data to any relational database schema.
- Improved Scalability Multiple initiatives can publish TeamSite Templating data in parallel using DataDeploy's new multi-threaded, Event Server-based architecture for Data Auto-Synchronization.
- Deployment Administration Users can now set up and configure the Event Server directly through the UI, eliminating the need to manually configure files and search through logs.
- **New Deployment Options** offering increased flexibility and security when configuring data deployments.

#### 5.2 Implementation Plan

Task	Owner
Obtain and Install Interwoven TeamSite 5.5.2, OpenDeploy 5.6, and DataDeploy 5.6 on ITA Environments	ITA
Perform TeamSite 5.5.2, OpenDeploy 5.6, and DataDeploy 5.6	ITA/Business
regression testing to ensure all applications are functioning properly	Owners





Create TeamSite 5.5.2, OpenDeploy 5.6, and DataDeploy 5.6 upgrade plan and schedule Production upgrade	ITA / CSC
Execute Production Upgrade	ITA / CSC
Perform Infrastructure Architecture Testing	ITA
Perform Software Application Testing	ITA
Ensure templates are compatible with new version.	Business Owners
Upgrade workflows for XML compliance.	Business Owners
Test external scripts that are used in CGIs (if applicable).	Business Owners



Environment	Server	Provides	IP Address
Development	SU35E2	Web Server	4.20.14.132
Development	SU35E5	Application Server	4.20.14.135
Production	SU35E1	Interwoven TeamSite Server	4.20.14.131
Production	SU35E8	Web Server	4.20.17.142
Production	SU35E9	Application Server	4.20.17.143
Production	SU35E10	Web Server	4.20.17.144
Production	SU35E12	Web Server	4.20.17.146
Production	SU35E13	Application Server	4.20.17.147



# 6 Autonomy

## 6.1 Dynamic Reasoning Engine (DRE)

The Autonomy Dynamic Reasoning Engine is a scalable, multithreaded process that is based on advanced patternmatching technology that exploits high performance probabilistic concept modeling techniques in order to analyze and deliver highly targeted content to users.

Summary		
<b>Current Version</b>	3.2.10	
<b>Support Termination Date</b>	Not Applicable	
Target Version	4.3.2 AXE (Autonomy XML Engine)	
Support Termination Date	Not Applicable	
Release Date	Not Applicable	
Software License Owner	Production: FSA	
	Development / Test: FSA	
Key Highlights	<ul> <li>Concept matching allows the DRE to accept a piece of content as input and return references to conceptually related documents ranked by relevance of contextual distance.</li> <li>Automatic Summarization returns a summary of the information containing the most salient concepts of the content. Dynamic summaries can be generated that relate to the context of the original query.</li> <li>Retrieval of documents based on a natural language query or Boolean term.</li> <li>Automatic Hyperlinking links contextually similar content and can be used to recommend documented related by textual content.</li> <li>High Performance Agent Matching enables documents to be dynamically matched against any scale of Boolean Agents. As content is indexed into the DRE, it is matched against all Agent rules simultaneously allowing targeted information to be delivered to the user in real-time.</li> </ul>	
Benefits / New Functionality	<ul> <li>Enhanced Indexing Performance allows DRE 4 to be up to 400% faster than previous versions. Peak indexing is 650 MB up to 2 GB per hour.</li> <li>Increased Querying Performance makes DRE 4 up to 100% faster than previous versions of the DRE 2.</li> <li>Improved Storage techniques include advanced compression for lower disk usage and performance. DRE 4 is now capable of indexing five times as many documents into one instance of the DRE while retaining viable query performance.</li> <li>Logging is now divided into multiple log streams for different log message types (Query, Index and Application)</li> <li>Split Data Storage allows data files to be stored across multiple partitions on the same machine in order to optimize storage space.</li> <li>Autonomy Content Infrastructure API enables easy communication between custom-built applications that retrieve data using HTTP commands and the Autonomy ACI servers. Communication with DRE 4 is implemented over HTTP using XML and can adhere to</li> </ul>	



.NET/SOAP standards.
<ul> <li>Multi-language support eliminates the need to split each document</li> </ul>
type and language into different databases.
<ul> <li>Simultaneous multi-security support eliminates the need to split</li> </ul>
security settings into different databases.

#### 6.1.2 Implementation Plan

Task	Owner
Obtain and Install DRE 4/AXE in non-production environments	ITA
Perform DRE 4/AXE regression testing to ensure all applications are functioning properly	ITA
Create DRE 4/AXE upgrade plan and schedule Production upgrade	ITA / CSC
Execute Production Upgrade	ITA / CSC
Perform Application Testing	ITA / Business Owners

#### 6.1.3 Systems Affected

Environment	Server	Provides	IP Address
Dev/Test	SU35E2	DRE 4 Development	4.20.15.132
Production	SU35E7	DRE 4 Primary	4.10.17.141
Production	SU35E15	DRE 4 Secondary	4.20.17.149

## 6.2 Autonomy Autoindexer

The Autoindexer analyzes file systems on local or networked machines for new documents to aggregate into the Autonomy Dynamic Reasoning Engine (DRE). It keeps the DRE's view of the file system in sync so that files deleted are automatically removed from the DRE, and modifications to files are reflected automatically.

Current Version	2.5.12.111	
Support Termination Date	N/A	
Target Version	2.6	
Support Termination Date	N/A	
Release Date	11/12/2002	
Software License Owner	Production: FSA	
Software License Owner	Development Test: FSA	
Key Highlights	<ul> <li>Configurable directories or file lists with automatic recursion</li> </ul>	
	<ul> <li>Filtering of content based on file extensions and dates</li> </ul>	
	<ul> <li>HTML rendering of various data formats</li> </ul>	
	<ul> <li>Batch processing</li> </ul>	
	<ul> <li>Import parameters compatible with any other Autonomy indexing</li> </ul>	
	process	



<ul> <li>Support for multiple jobs performing different ac</li> </ul>	tions
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■ Import module built-in

Autonomy has mentioned that there have been no significant changes to the current version of AutoIndexer (2.5.12.111) and consequently no upgrade for this particular module is required immediately. ITA will continue to utilize the 2.5.12.111 version.

#### 6.2.2 Implementation Plan

Task	Owner
Obtain and Install Autoindexer in non-production environments	ITA
Perform Autoindexer regression testing to ensure all applications are functioning properly	ITA
Create Autoindexer upgrade plan and schedule Production upgrade	ITA / CSC
Execute Production Upgrade	CSC / ITA
Perform Application Testing	ITA

#### 6.2.3 Systems Affected

Environment	Server	Provides	IP Address
Dev/Test	SU35E2	Autonomy Autoindexer Development	4.20.15.132
Production	SU35E10	Autoindexer Primary	4.20.17.144
Production	SU35E12	Autoindexer Backup	4.20.17.146

#### 6.3 Autonomy HTTP Fetch

The HTTP Fetch spiders multiple Internet or Intranet web sites to aggregate web or intranet data into the Autonomy Dynamic Reasoning Engine (DRE). The DRE can be synchronized with spidered websites by automatically removing deleted documents and URLs from the DRE and modifying entries for moved or modified documents and changed URLs.

Current Version	v2.2.4.88	
<b>Support Termination Date</b>	N/A	
Target Version	2.3.0	
Support Termination Date	N/A	
Release Date	8/1/2002	
Software License Owner	Production: FSA	
	Development/Test: FSA	
Key Highlights	<ul> <li>Supports multiple simultaneous web-site spidering and starting</li> </ul>	
	positions	
	<ul> <li>Filtering of content based on highly configurable date checking</li> </ul>	



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	<ul> <li>HTML rendering of various date formats</li> </ul>		
	<ul> <li>Batch processing</li> </ul>		
	<ul> <li>Import parameters compatible with all other Autonomy indexing</li> </ul>		
	processes		
	<ul> <li>Configurable login method, including CGI, cookies, and forms</li> </ul>		
	<ul> <li>Follows robot protocol, both robots.txt and page headers</li> </ul>		
	<ul> <li>Highly configurable URL/Page/Navigation criteria, including</li> </ul>		
	wildcards, size and link limits		
	<ul> <li>Intelligent updating: prediction and calculation of page changes</li> </ul>		
	<ul> <li>Support for SSL and proxy</li> </ul>		
	HTTP and Proxy/Firewall authentication		
	<ul> <li>Import module built-in</li> </ul>		
Benefits / New Functionality	<ul> <li>Improved Help and configuration validation are now supported</li> </ul>		
•	<ul> <li>Improved redirects for redirections that were previously</li> </ul>		
	unsupported.		

#### 6.3.2 Implementation Plan

Task	Owner
Obtain and Install HTTP Fetch in non-production environments	ITA
Perform HTTP Fetch regression testing to ensure all applications are functioning properly	ITA
Create HTTP Fetch upgrade plan and schedule Production upgrade	ITA / CSC
Execute Production Upgrade	ITA / CSC
Perform Application Testing	ITA

#### 6.3.3 Systems Affected

Environment	Server	Provides	IP Address
Dev/Test	SU35E2	HTTP Fetch Development	4.20.15.132
Production	SU35E7	HTTP Fetch Primary	4.20.17.141
Production	SU35E15	HTTP Fetch Backup	4.20.17.149

Upgrading to the Autonomy suite will allow the architecture team to leverage the new features of Autonomy such as search capability and better stability in execution for the business owner applications can be achieved. Furthermore the upgrade is essential to maintain vendor product support which is a crucial element in ensuring timely response and support if and when production support is required as has been the case in the past with stability issues. Additionally the Autonomy upgrade will allow the business application owners to continue to develop and plan for enhanced feature rich new applications eliminating any potential limitations that Autonomy may present as a consequence of a lower product version.

